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ASSESSMENT OF RURAL MEXICAN-AMERICAN PUPILS, PRESCHOOL AND GRADES ONE THROUGH SIX, SAN YSIDRO, CALIFORNIA.

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MEXICAN-AMERICAN STUDENTS FROM 8 GRADE LEVELS WITHIN THE SAN YSIDRO, CALIFORNIA, ELEMENTARY SCHOOL DISTRICT WERE TESTED IN JUNE, 1967, AS PART OF AN EVALUATION OF THE RURAL MEXICAN-AMERICAN STUDENT POPULATION IN CALIFORNIA. ANALYSIS OF TEST RESULTS REVEALED THAT MEXICAN-AMERICAN STUDENTS FELL PROGRESSIVELY BEHIND IN PERCEPTUAL MOTOR DEVELOPMENT--A DEFICIT ATTRIBUTED TO BOTH HOME AND SCHOOL ENVIRONMENTS. LOW SELF-CONCEPT SCORES AND ABOVE-NORMAL SOCIAL MATURITY SCORES MAY HAVE REFLECTED THE DEMANDS OF 2 CULTURES ON THE MEXICAN-AMERICAN STUDENT. ACADEMIC ACHIEVEMENT PROGRESSIVELY DECLINED, POSSIBLY AS A RESULT OF THE DE-EMPHASIZING OF INDIVIDUALIZED INSTRUCTION AND THE ABSTRACTION DEMANDS MADE ON MEXICAN-AMERICAN STUDENTS BY MATERIALS GEARED TO MIDDLE-CLASS NORMS. TABLES SHOW WHICH TESTS WERE GIVEN TO WHICH GRADE LEVELS, AGE-GRADE RELATIONSHIPS, AND RESULTS BY INDIVIDUAL TEST. RELATED DOCUMENTS ARE RC002539 AND RC001775. (JEH)

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Assessment of Rural Mexican-American Pupils

Preschool and Grades One Through Six

San Ysidro, California

CALIFORNIA STATE DEPARTMENT OF EDUCATION
Max Rafferty—Superintendent of Public Instruction
Sacramento
1968

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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Assessment of Rural Mexican-American Pupils

Preschool and Grades One Through Six

San Ysidro, California

A Report Prepared for

the California State Department of Education
Mexican-American Research Project
John Plakos, Director

By
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PREFACE

This survey, conducted in San Ysidro, California, represents the second of a series of research studies designed to assess the strengths and needs of the Mexican-American student population in the state of California. The first study of this series was conducted in Wasco, California. It is suggested to the reader of this report that a comparison of the findings and recommendations from these two (2) surveys be made, as much valuable information can be gained from this approach.

As progress is made in assessing our Mexican-American pupils, then our schools will be able to become better equipped to meet their unique needs. The San Ysidro study has contributed to the growth of knowledge in this area.

The California State Department of Education wishes to extend its gratitude to the San Ysidro Elementary School District for its cooperation and assistance in the implementation and completion of the assessment of their Mexican-American student population.

EUGENE GONZALES
Associate Superintendent of
Public Instruction

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Education Research Project

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I. INTRODUCTION

The California Mexican-American Education Research Project, with cooperation of the San Ysidro Elementary School District, initiated a research project directed at more effectively educating Mexican-American students in the San Ysidro public schools and throughout the state of California. As a part of this research proposal, a specific assessment project was undertaken for purposes of aiding these educational agencies in their efforts to select and develop curricular approaches and techniques which would be suited to the needs of the Mexican-American student population.

This assessment project was directed in part toward the following questions:

(1) What types of additional curricular approaches and materials would be appropriate for this population?

(2) What kinds of educational techniques in addition to those currently in use are most relevant to this population?

Purpose

The purpose of this assessment project was to evaluate the educationally relevent strengths and weaknesses of this Mexican-American student population both in relation to themselves and to the culture-at-large. The underlying assumption has been that the cultural patterns which constitute the life style of the rural Mexican-Americans of the area are sufficiently divergent from those of the culture-at-large that special educational consideration for these students is warranted.

The outgrowth of this evaluation is intended to suggest both curricular approaches and specific educational techniques appropriate to this student population.

In light of the foregoing statement of purpose, answers were sought to the following questions:

(1) In which areas does this population fall significantly above or below general population norms?

(2) At which grade levels do divergent developmental changes become evident, and in what directions do these changes occur?

(3) Are emergent developmental patterns apparent which might lead to the development of hypotheses concerning the etiology of these divergencies?

Population

The sample chosen for this study was randomly selected from those students with Spanish surnames attending the San Ysidro public schools. Fifteen were originally selected from each grade, pre-school through sixth, and the use of occasional substitutes raised this to a larger number. As far as possible, an equal number of males and females was chosen for each grade level.

The subsample, to whom were given a battery of individual tests, were randomly chosen from the sample in all eight grades -- pre-school through sixth.

The community of San Ysidro (population 4,500), a suburb of the City of San Diego, is located sixteen miles south of the San Diego Civic Center and directly across the United States-Mexico border from Tiajuana. It has a semi-agricultural economy in which truck farming (tomatoes), thoroughbred horse raising, and dairies are important. Because of its proximity to the border, it has growing export-import businesses.

San Ysidro schools consist of three public elementary schools (kindergarten through eighth). There are no junior or senior high schools in San Ysidro, itself.

The population includes approximately 85 per cent Mexican-Americans (as identified by Spanish surnames), 14 per cent "Anglos", and 1 per cent "other". There is a great deal of mobility in both directions across the border. Many of the residents of San Ysidro are employed in Tiajuana.

II. INSTRUMENTATION

It is recognized by the writers that any standardized testing to be done among subgroups of the general population, such as Mexican-Americans, is at best hazardous and at worst untenable. With this caution in mind, several instruments were chosen only after a careful selection process taking into account both the areas to be assessed and the limitations inherent in the testing situation, such as time, expense, and competencies of testing personnel. In making these selections the writers kept one principle foremost in their consideration: the purpose for the testing is diagnostic and is intended to yield data helpful in developing remedial and developmental programs designed to enable the Mexican-American student to participate more effectively in the social-educational-cultural milieux of American public education. Given this principle for instrument selection, the writers feel that the standardized tests chosen were not only justified but warranted in order to provide the kinds of information needed to fulfill this objective.

Areas of Measurement

Three critical areas of childhood and adolescent development were selected for measurement:

(1) Perceptual-Motor

(2) Social-Emotional

(3) Intellectual-Academic

Instruments designed to measure characteristics in these areas were carefully selected because of their usefulness and appropriateness to the assessment objectives.

A short description of each test follows:

I. Perceptual-Motor

A. Frostig Developmental Test of Visual Perception

This instrument evaluates the perceptual skills of young children by yielding sealed scores in five perceptual areas, enabling the examiner to identify both strengths and handicaps. These areas are: (1) Eye Motor Coordination; (2) Figure Ground; (3) Constancy of Shape; (4) Position in Space; and (5) Spatial Relationships.

B. Bender Visual Motor Gestalt Test

This test is one of perception and visual-motor functioning and involves sensory reception, interpretation at the central levels of the nervous system, and motor performance.

II. Social-Emotional

A. California Test of Personality

Consisting of two sections, the first part indicates how the student thinks and feels about himself, his estimate of his own worth, his sense of personal freedom, and his feeling of belonging. Part two consists of social adjustment components; how he functions as a social being, and how he feels about social standards, social skills, family, school, and community relationships.

B. Vineland Social Maturity Scale

This scale measures progressive maturation and adjustment to the environment in the following categories: self-help, self-direction, locomotion, occupation, communication, and socialization.

III. Intellectual-Academic

A. Goodenough-Harris Drawing Test

A non-verbal mental ability test.

B. Wechsler Intelligence Scale for Children; Wechsler Adult Intelligence Scale

These are individually administered tests of intelligence that yield scores on both verbal and performance sections.

C. California Achievement Test and Multiple Aptitude Tests

Although not chosen by the writers, current scores on these instruments were made available by the schools and incorporated into the study. Both instruments yield information in three areas: reading, language, and arithmetic. The C.A.T. data are reported in grade placement form, while the M.A.T. data are reported in percentile rank.

D. Stanford Achievement Test (S.A.T.)

The portion of the S.A.T. used in this study is a measure of reading ability which is broken down into three categories: word reading is an indicator of vocabulary strength; paragraph meaning is a measure of understanding concepts in small paragraphs; and word study skills measures the ability to handle new words. The total reading score is based on the three subscores. Results are reported in grade level attainment.

Procedure

Students were selected from eight grade levels within the San Ysidro public schools, pre-school through grade six inclusive. Approximately 15 students were randomly selected from each grade level for a total of 120. Absenteeism and availability of sufficient numbers of Mexican-American students in each grade level caused this number to vary by one or two in different grades.

The entire sample of grades checked was administered each group test listed on Table 1. This includes some test data that was made available from the cumulative records of the students and was obtained no more than one month prior to the date of this project.

From the sample of 120, a smaller sample of 25 was selected for in-depth testing. Five students were randomly chosen from the sample in each of the following grades: second, third, fourth, fifth, and sixth. Test batteries administered to this group were the Bender Visual Motor Gestalt Test, Vineland Social Maturity Scale, and the WISC.

It will be observed that not all 120 students received tests in each of the three areas which were measured. Tests measuring academic achievement and aptitude were not considered useful in the very early grades (pre-school, kindergarten, and first). These exceptions were made in part because of the limited usefulness of the data and in part because of the inability of present tests to measure accurately in these areas.

Testing was conducted both by local school personnel and a team of psychologists who went to San Ysidro specifically for this project. Seven days were set aside for the testing, and virtually all of the individual batteries were administered during this period (June 1-9). Some of the group testing was conducted prior to this time while the remainder took place during these days.

The cooperation of local school personnel could not have been more sincere or enthusiastic. Both of the writers, who were present during the testing period, and the other testing specialists were impressed with the degree of cooperation provided by school administrators, guidance personnel, and teachers. It should also be noted that the Mexican-American subjects who underwent testing seemed appreciative of the special attention that was given them during this week.

Among the problems encountered during the testing program, the usual rate of absenteeism prevailed and an occasional mix-up in schedules occurred. Whenever possible, make-up tests were administered. Children unable to speak English were referred to Spanish-speaking psychologists for testing. (Most testing of non-English-speaking children was conducted by Dr. Palomares.)

TABLE 1

TESTS ADMINISTERED BY GRADE

GRADE	PERCEPTUAL-MOTOR		SOCIAL-EMOTIONAL		INTELLECTUAL-ACADEMIC				
	TOTAL SAMPLE	TOTAL SAMPLE	TOTAL SAMPLE	SUB SAMPLE	TOTAL SAMPLE	TOTAL SAMPLE	TOTAL SAMPLE	TOTAL SAMPLE	SUB SAMPLE
	FROSTIG	BENDER	C.T.P.	VINELAND	C.T.M.M.	C.A.T.	S.A.T.	GOODENOUGH	WISC.
PRE	X	X						X	
K	X	X						X	
1	X	X	X				X	X	
2	X	X	X	X			X	X	X
3	X	X	X	X		X		X	X
4		X	X	X	X	X		X	X
5		X	X	X	X			X	X
6		X	X	X	X	X		X	X

Limitations of the Study

(1) No comparable sample of Anglos was tested for comparative purposes; rather, use was made of general normative data reflective of the total population-at-large. This limitation may lead to the question: "to what extent are the Mexican-American characteristics indicative of the whole population?"

(2) The comparable numbers of male and female subjects used in the study was affected intentionally by the researchers. This limitation may lead to the question: "what is the actual male-female ratio of Mexican-American subjects?"

(3) All subjects included in the study were selected on the basis of Spanish surname. This limitation may lead to the question: "how many others may have mothers of Mexican descent, and what differences exist between them and those whose fathers are of Mexican descent?"

(4) No data were gathered which related to the socio-economic status of the subjects. This limitation may lead to the question: "is family income a factor in school achievement?"

(5) No effort was made as a part of this study to determine dropout data -- age of dropouts, grade levels in which dropping out most frequently occurs, and the ability and achievement levels of dropouts. Investigation into these areas could yield information concerning ways in which Mexican-American students might be encouraged to remain in school and also provide information to educators regarding corrective measures that could be instituted within the schools to reduce the dropout rate.

Age-Grade Relationships

Table 2 reports the ages of students tested in each grade. The progression is orderly from grade to grade except from grades two to three, where the mean age jumps from 8 to 10. This may be coincidental, but it suggests some probing to determine whether a dropout problem is occurring, an influx of new students is being experienced, or some other reason underlies this change.

TABLE 2

AGE - GRADE RELATIONSHIPS

GRADE \ AGE	4	5	6	7	8	9	10	11	12	13	14
PRE	7	6	1								
K		1	14								
1				10	3	2					
2				1	8	6					
3						4	9	2			
4							6	9			
5								3	10	1	1
6									6	9	

III. ANALYSIS OF TEST RESULTS

I. Perceptual-Motor

Frostig Developmental Test of Visual Perception

Usable test data were gathered on the Frostig from pre-school through grade three inclusive. Although the test was also administered to grades four and five, existing normative data do not permit the test interpreters to make any conclusive statements regarding those grades.

Table 3 reports the Frostig findings. The mean perceptual quotients (P.Q.'s) are over 90 (low normal) for the pre-school and kindergarten, but it can be seen that the scores drop off at grade one and continue to drop at grade two before stabilizing at grade three.

Standard deviations indicate considerably less variance for grades two and three than for the earlier grades. This suggests that the students tested are more homogeneous in the last two grades, a possible indication that the influence of the school is already beginning to take hold. Another contributing factor may be the smaller size of the samples in those grades (10 and 12 as against 14 and 15).

An analysis of the Frostig subscores does not yield any conclusive information. There is no clear pattern of specific perceptual-motor abilities or deficiencies evident.

It is apparent that the Mexican-American children tested are experiencing a decline in their perceptual-motor abilities in relation to the general population. Data for grades four and five support the general finding that from pre-school and kindergarten on, these children are not developing these abilities as might be hoped.

Bender Visual-Motor Gestalt Test

This instrument was administered to the entire sample in the San Ysidro study in an attempt to locate extreme deviations among any particular grade levels. It was found that each grade scored well within the normal range, an indication that visual-motor coordination is not impaired among the students in this sample.

This finding lends support to the possibility that the increasingly (by grade) poor performance on the Frostig is due to environmental factors rather than inherent visual-motor deficiencies.

TABLE 3

FROSTIG SCORES BY GRADE

	PRE	K	1	2	3
I	9.21	8.92	8.46	7.75	7.90
II	7.71	9.35	10.20	9.25	9.00
III	10.71	8.85	7.46	7.75	8.10
IV	7.92	9.71	8.60	8.17	9.10
V	9.35	8.71	9.00	9.75	11.20
P.Q. $\bar{X}$	90.35	92.71	87.06	84.25	[illegible]
P.Q. SD	14.42	13.51	14.79	10.99	6.7
N	14	14	15	12	10

II. Social-Emotional

California Test of Personality

This test, which is basically a measure of one's personal and social adjustment, was administered to the entire sample. The results are reported on Table 4.

Regarding personal adjustment scores, it appears that the general trend from grade one is upward. With the exception of grade three, mean percentiles either remain stable or rise from grade to grade.

In the social adjustment category, there is a progressive upward movement through grade four, followed by a stabilization at the low-normal level.

The total adjustment scores reflect an overall rise from grades one through three to four through six. This is perhaps the most meaningful pattern from which to conclude. Although the total adjustment percentiles are all below average, a definite pattern of improvement is evident, suggesting that the school is playing a part in absorbing the children into its mainstream of activities. Low adjustment percentiles in the early grades probably reflect initial difficulty in the school situation.

Vineland Social Maturity Scale

The measures of social maturity, which are represented by a social quotient (S.Q.), are presented in Table 5. It is clearly evident that the Mexican-American children tested in this sample are in the normal to high-normal range.

This is a reflection of their general level of social maturity, including responsibility, widening range of interests, social competency, and social awareness. These students are apparently at or above expected normal development in these areas.

III. Intellectual-Academic

Goodenough-Harris Draw-A-Man Test

This non-verbal intelligence test was used primarily because the Mexican-American sample tested in San Ysidro was not proficient in English. Table 6 reports the results, and it can be seen that from kindergarten through grade six, the children are well within the normal range. The pre-school mean I.Q. based on a sample of ten children is 72.1, an unexplainably low average. Since no other measure of intelligence was administered to this age level, there is no other standard with which to compare it. In view of all the other evidence available, the writers of this study attribute this low average to some sort of error, random or otherwise, and are not attempting to deal with it.

TABLE 4

CALIFORNIA TEST OF PERSONALITY BY GRADE

		1	2	3	4	5	6
PERSONAL	$\bar{X}$	24.33	28.00	24.30	45.83	45.26	58.92
	S.D.	3.97	5.45	4.00	7.30	6.38	7.16
	% ILE	10	20	10	30	30	60
SOCIAL	$\bar{X}$	30.60	33.85	32.53	55.91	54.06	58.00
	S.D.	3.83	7.22	3.64	4.39	6.41	9.19
	% ILE	20.	30	30	50	30	40
TOTAL	$\bar{X}$	54.93	61.85	56.84	101.58	99.33	108.35
	S.D.	5.94	11.07	6.06	9.44	9.74	31.33
	% ILE	20	30	20	40	30	40
N		15	13	13	12	15	14

TABLE 5

VINELAND SCORES BY GRADE

	2	3	4	5	6
SOCIAL QUOTIENT	97.00	103.40	116.75	108.80	108.60
S.D.	11.92	5.72	12.78	7.79	4.82
N	4	5	4	5	5

Table 6

Goodenough-Harris Test by Grade

	Pre	K	1	2	3	4	5	6
Man	71.5	90.0	99.1	109.5	100.1	101.4	100.9	100.6
Woman	72.3	90.7	97.4	111.2	101.2	101.6	103.7	97.6
Total	72.1	90.7	98.5	110.2	100.9	101.5	102.6	99.4
S.D.	11.4	14.2	14.1	17.0	14.1	12.6	21.4	17.6
N	10	14	15	13	15	13	14	12

Wechsler Intelligence Scale for Children

Mean WISC scores, reported in Table 7, show a consistent pattern in which performance I.Q. is always higher than verbal I.Q., evidence that the children tested are encountering difficulty when confronted with language problems.

There is a steady rise in verbal I.Q. from grades three to four, but a sudden drop of 9 points occurs in grade five, followed by a rise of 18 points in grade six. This extreme variation may be attributed to the relatively small subsample of four or five per grade. Other factors, however, may be responsible and should be investigated by district personnel.

The performance I.Q.'s are all within the normal range of intelligence. Total I.Q.'s are somewhat lower due to the weight given to verbal I.Q. scores.

Profiles of WISC scores for grades two through six are reported on Tables 8 through 12. Certain similarities among these profiles are immediately evident. The vocabulary score is the lowest for each grade except grade four; the information score is uniformly low with the exception of grade six. Performance scores generally show less variation than verbal scores with the exception of grade five.

Generally speaking, the WISC scores show this group to be within the normal range in grades four, five, and six. Increased verbal skills would undoubtedly bring all the scores well within the normal range. It is apparent that language handicaps are causing these children to score lower on the WISC.

Stanford Achievement Test

S.A.T. scores for grades one and two only are reported on Table 13. Grade one scores are uniformly normal in all three areas (plus the total) measured. Grade two scores, however, are all below normal, indicating a beginning lag which could result in serious trouble in later grades. See the discussion under California Achievement Test results for further implications.

California Achievement Test

C.A.T. scores for grades three through six are reported on Table 14. Reading scores are all below normal indicating an approximate one-year lag in reading ability. Testing was conducted late in the year; normal scores, therefore, should be from 0.6 to 0.8 above the year tested.

Language scores are below normal at grade four, slightly above normal at grade five, and slightly below normal for grade six. This represents an encouraging sign and suggests that with additional reading assistance these children could be reading at grade level.

TABLE 7

WISC SCORES BY GRADE

		2	3	4	5	6
VERB.	$\bar{X}$	78.3	78.2	87.3	78.0	96.2
	S.D.	6.2	6.0	7.0	7.3	12.7
PERF.	$\bar{X}$	93.0	93.4	102.0	99.8	96.6
	S.D.	12.5	16.0	5.1	8.1	16.1
TOTAL	$\bar{X}$	83.8	83.8	93.5	87.2	96.0
	S.D.	5.4	9.0	4.8	8.1	14.2
	N	4	5	4	5	5

Arithmetic achievement is slightly below grade level in grades three and four, but falls to a year below expectation in grade six. This deficiency could lead to significant problems in junior high school and should be corrected in grades five and six.

TABLE 8

WISC PROFILE FOR GRADE 2

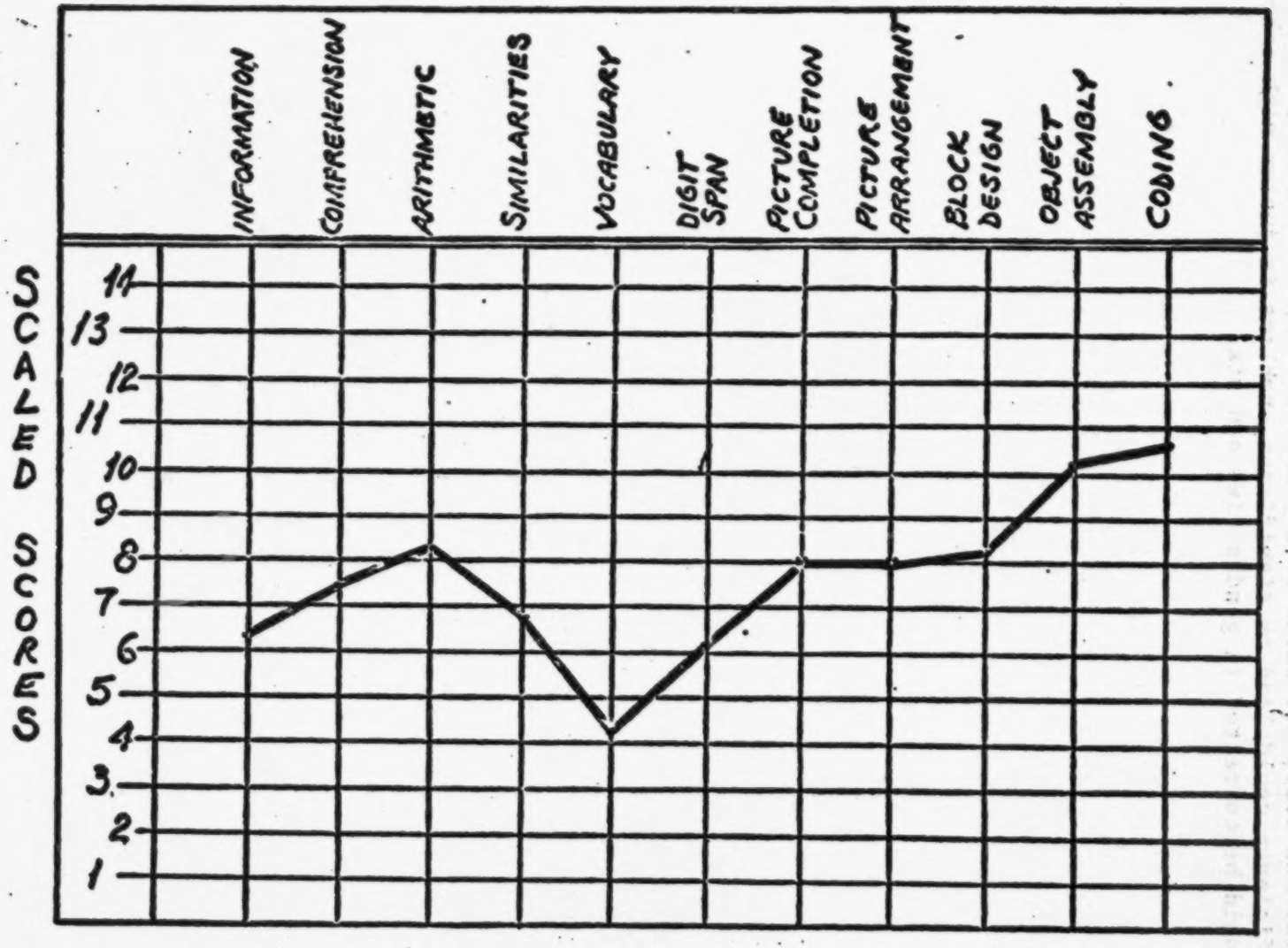

TABLE 9

WISC PROFILE FOR GRADE 3

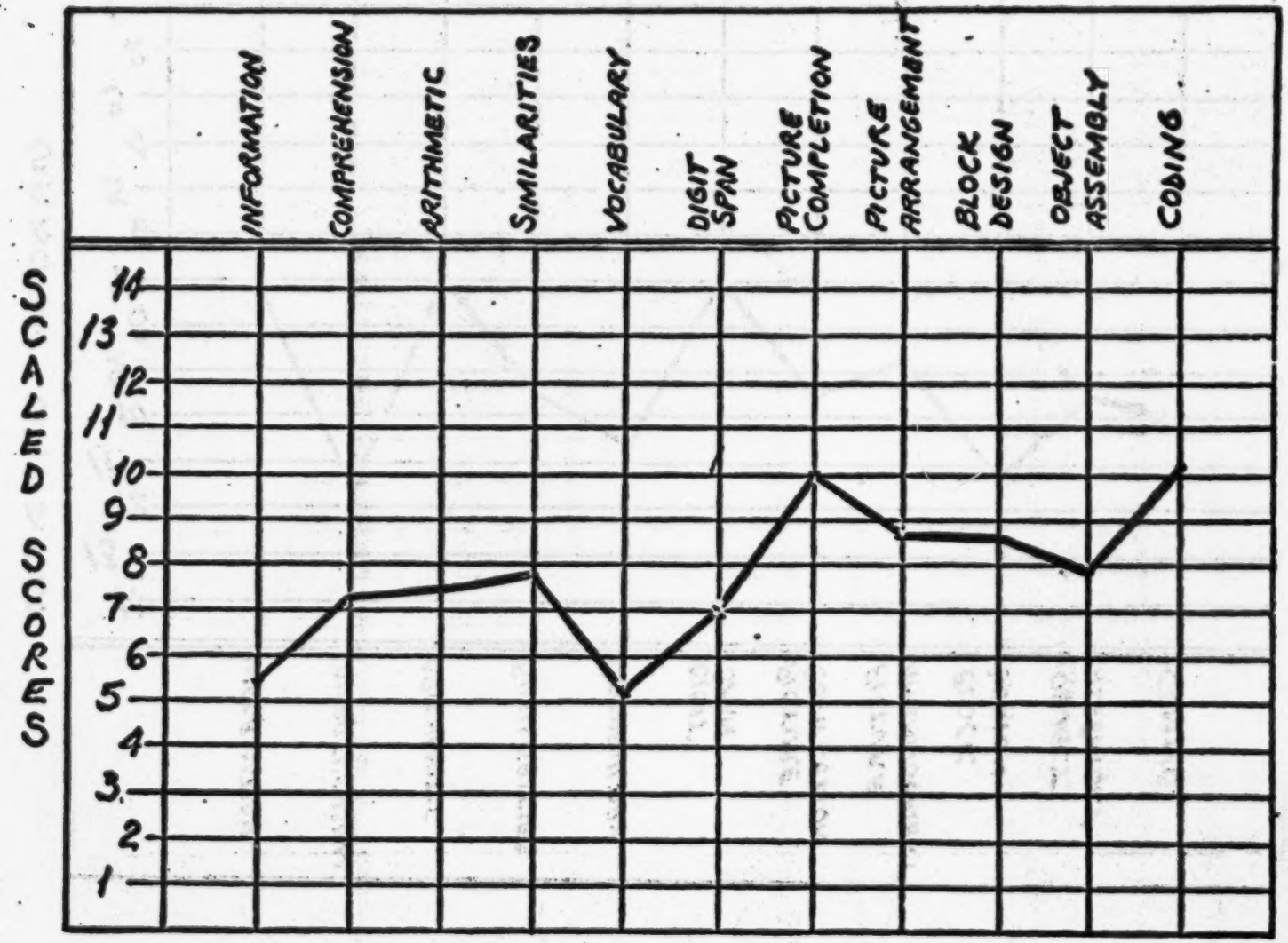

TABLE 10

WISC PROFILE FOR GRADE 4

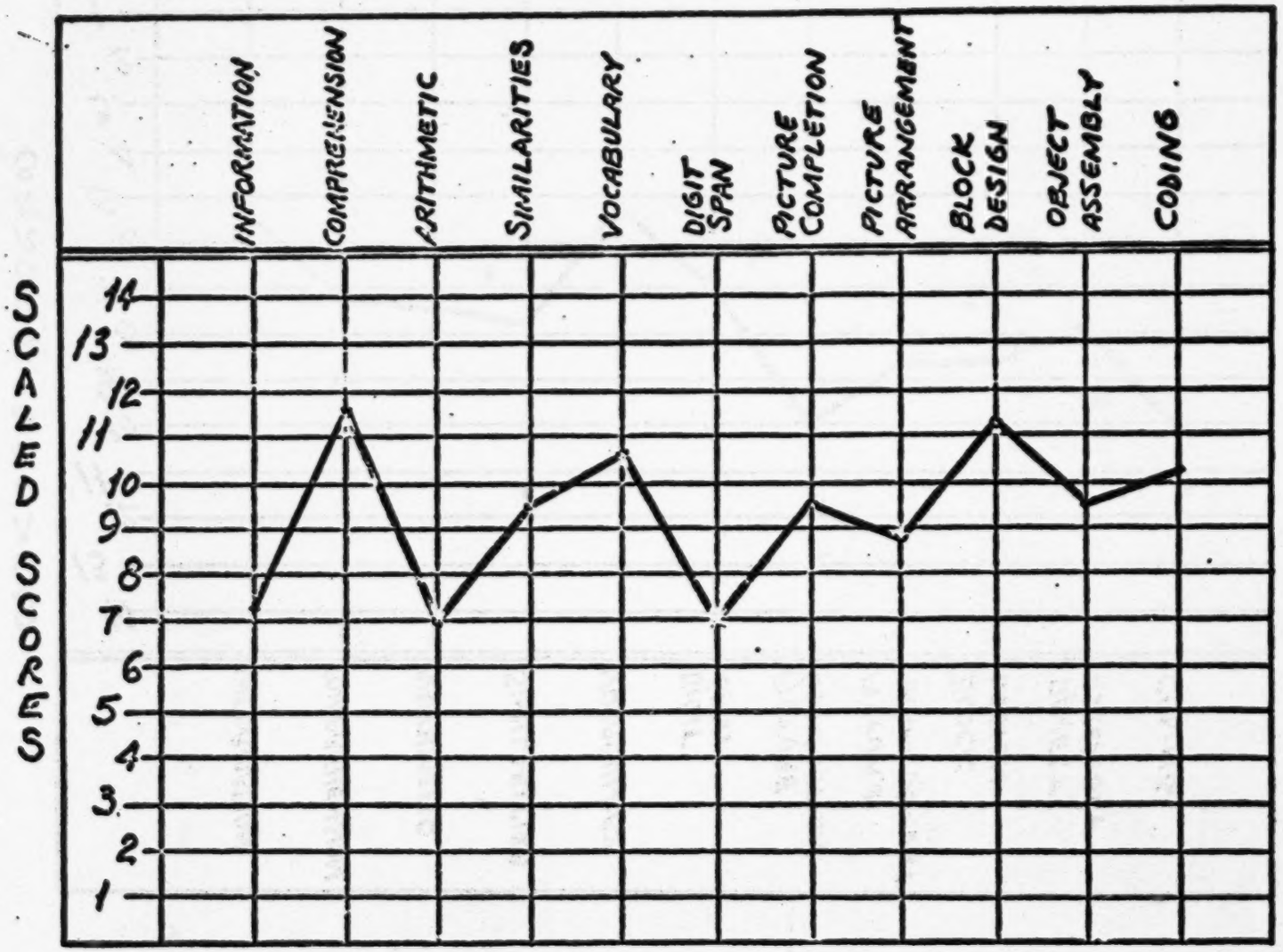

TABLE II

WISC PROFILE FOR GRADE 5

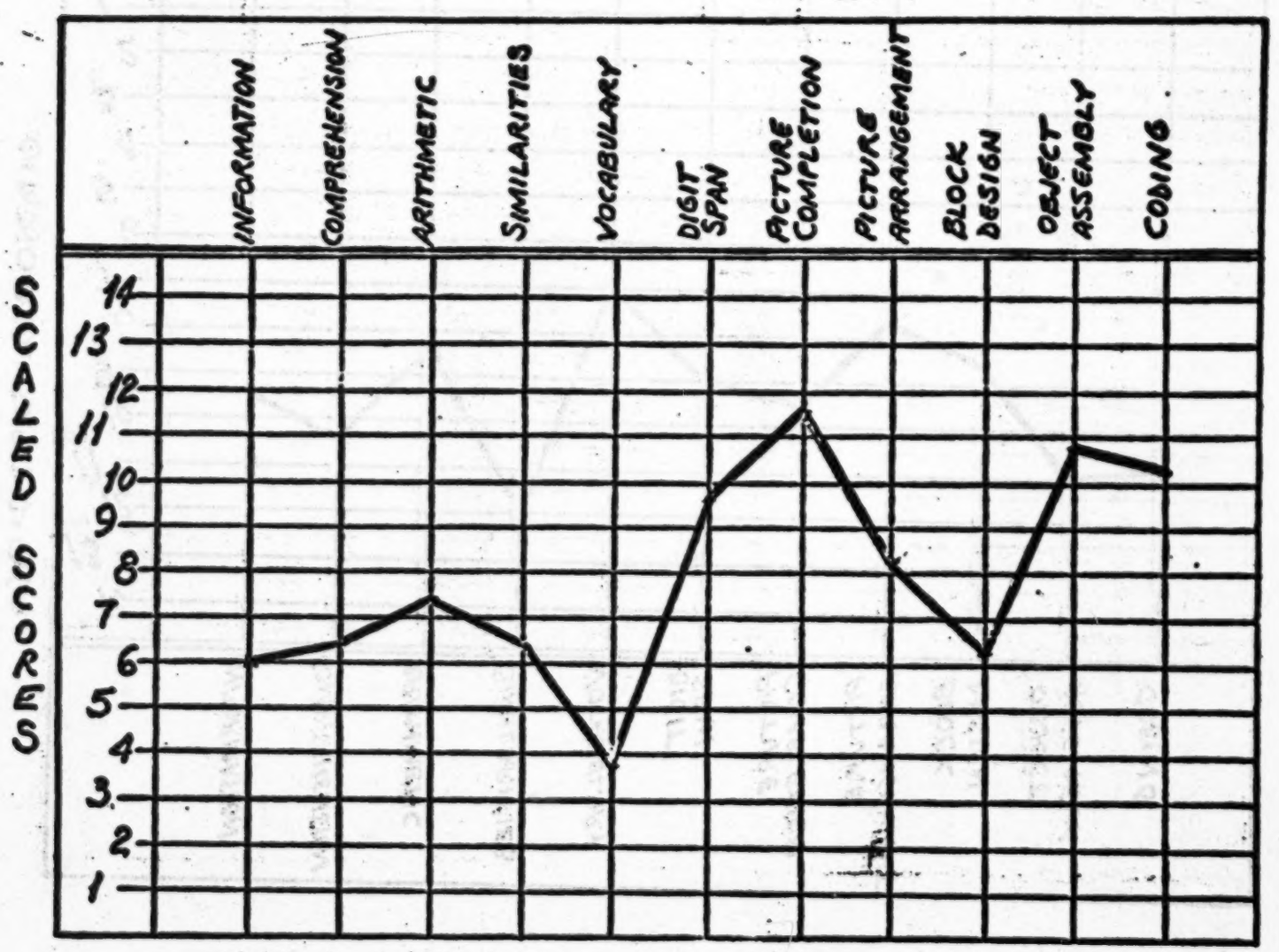

TABLE 12a

WISC PROFILE FOR GRADE 6

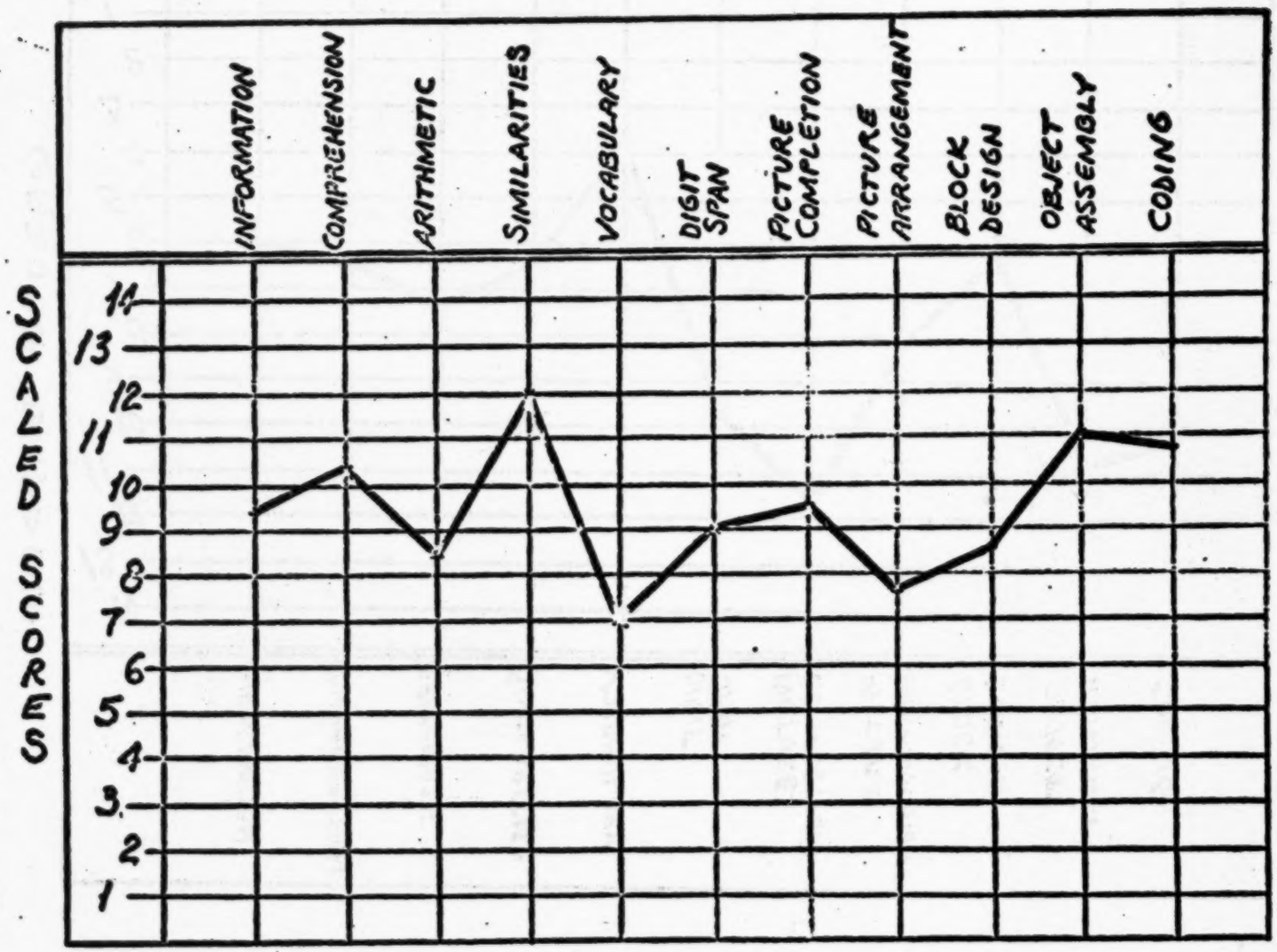

TABLE 13

SAT GRADE PLACEMENT SCORES BY GRADE

GRADE	WORD READING	PARAGRAPH MEANING	WORD STUDY SKILLS	TOTAL READING	S.D.
1	1.5	1.6	1.5	1.6	2.6
2	1.5	1.8	2.0	1.7	2.1

Table 14

California Achievement Test by Grade

		3	4	6
Reading	Grade Level	2.7	4.2	5.6
	S.D.	0.84	1.11	1.00
Language	Grade Level	2.6	5.0	6.4
	S.D.	1.00		0.90
Arithmetic	Grade Level	3.2	4.6	5.5
	S.D.	0.62		1.11
	N	12	15	12

IV. CONCLUSIONS AND RECOMMENDATIONS

Note: The following conclusions and recommendations are the result of careful consideration by the authors of the objective data in light of their personal professional experience. The value of these conclusions lies in their generating recommendations for both curriculum and educational techniques specifically designed to focus on the strengths and weaknesses of the Mexican-American population. It is not intended that the findings of this assessment program in and of themselves verify the conclusions and recommendations. Rather, these conclusions and recommendations are still to be explored in greater detail as they are carried out and tested in the field.

Conclusions in the Perceptual-Motor Category

The Mexican-American students in San Ysidro tend to fall progressively behind the normative population in perceptual-motor development. These students do, however, appear to have similar basic ability to the normative population at the pre-school and kindergarten level; thus the progressive deficit in perceptual-motor development is attributed to both home and school environment.

Central to the comparative lack of perceptual-motor development in the Mexican-American students' homes appears to be the lack of stimulating work and play objects concomitant with those in the normative population. Reasons that these work and play objects are not present appear to be many, but here is a sample of the more important:

(1) Ignorance of the parents concerning the development level of work and play objects;

(2) Lack of interest by the parents concerning what the children pay with;

(3) Lack of sufficient time for children to play due to the necessity for work requiring very little in perceptual-motor developmental tasks;

(4) Lack of finances to purchase the work and play objects associated with perceptual-motor experiences that are provided for the normative group.

The schools appear to perpetuate this progressive deficit by their insistence on continuing educational programs at the primary level assuming that all children have similar perceptual-motor experiences in the home. This assumption allows for the elimination of valuable pre-school and kindergarten type perceptual-motor experiences in favor of more academic type experiences in the second through fifth grades, and especially in the third, fourth, and fifth grades.

The consequences appear to be a lack of perceptual-motor background experiences that are so critical to the continual development of basic academic skills.

Recommendations in the Perceptual-Motor Category

What can the schools do to overcome the progressive retardation that characterizes the perceptual-motor development of Mexican-American students in the San Ysidro elementary schools?

Curriculum Recommendations

(1) There should be an inclusion of progressively sophisticated perceptual-motor experiences designed to sharpen the perceptual-motor skills of the Mexican-American students. Much of what is done in pre-school and kindergarten should be continued in a more progressively sophisticated level from the first through sixth grades. Some specific examples of these experiences are: the use of puzzles, coloring books, find-the-hidden-object-in-the-drawing games, Scrabble, and more current sophisticated curricular innovations in the area such as the materials of Gesell and Frostig. The inclusion of these perceptual experiences should be central to the regular curricular program indicating that both time and thought must be given to their inclusion.

(2) The availability of such materials would result from having a central disseminating library of materials easily accessible to both home and school. The use of the materials by the school would follow along the line of the traditional library. Teachers would be encouraged to check out and use the materials in their regular school and physical education activities. These materials would also be made available for the children to take home. Length of time and the condition of the material on their return would be realistically and liberally interpreted.

(3) Materials designed to heighten the perceptual-motor development would also be made available as part of the playground and recess experiences. It should be emphasized that the serious needs these children have in the perceptual-motor field require the reinterpretation of what supplies are made available to the children during recess.

(4) Writing games should be introduced designed to sharpen the awareness of the size and shape of letters. The subject areas of special concern for the introduction of such perceptual concepts would be language and writing.

Educational Technique Recommendations

(1) The extensive use of pre-service and in-service education to make clear to the pre-school through sixth grade teachers the nature of perceptual-motor development in children should be made a part of the school program. Of special significance would be the re-education of teachers as to what is more important in light of the educational development of children. Specifically, the work of individuals like Gesell and Frostig would be of special significance.

(2) The person charged with community coordination should be used to educate the parents of the perceptual-motor needs of their children. The education of parents concerning the different toys available to children at different age levels should be made a part of adult education programs. The

use of both the community coordinator and the adult education program to acquaint the parents to the value and function of the perceptual-motor library should also be considered critical.

(3) The hiring of reading specialists who have special knowledge and training in the relationship between perceptual-motor development and reading would provide invaluable assistance in the continual in-service training of teachers. Their help to the Mexican-American population would be of great importance.

Conclusions in the Social and Emotional Categories

The Mexican-American population in the San Ysidro schools tends to see itself in a less favorable way than the normative population. Its self-concept seems permeated with feelings of inadequacy and low self-esteem in both home and school environment. In spite of their low self-concept, social maturity tended to be considerably higher than that of the middle-class normative population.

It seems that when the Mexican-Americans are questioned about themselves, they see themselves in an unfavorable light; yet when an objective evaluation is made of their social ability and contribution in their total home and school environment, they rank fairly high. This type of discrepancy between group self-concept and social maturity would not seem to be the rule in the middle-class normative population. That is, if a group of children scores high on social maturity, it might be expected that they would also achieve high measures in the self-concept category of emotional adjustment. The question that arises then is why does such a discrepancy occur between the Mexican-Americans' subjective feeling of personal worth as measured by the California Test of Personality (C.T.P.) and the objective evaluation of their social adjustment as measured by the Vineland Social Maturity Scale.

Regarding the Mexican-Americans, both the C.T.P. and the Vineland are middle-class measures with similar biases. The discrepancy between the measures might be expected to exist between self-concept and social maturity for the Mexican-American population even if the measures tended to be lower because of the cultural bias. The answer to the discrepancy might then be only partially attributed to biased instruments.

What follows is an effort to infer psychological characteristics of a subculture with instruments developed for, by, and administered by individuals from predominantly middle-class culture. The authors conceive of the possibility that an instrument constructed by the Mexican-American population for Mexican-Americans might indicate the middle-class population to be deviant in a negative fashion from the normative population. Indications from the present measures of personal adjustment used by this study suggest that the self-concept of the Mexican-American in his own culture is much more positive. Since, however, no such test is available, the possibility of assessment of the self-concept of the Mexican-American removed from the middle-class norms will remain speculative.

The Mexican-American students in San Ysidro tend to live in two cultures, each with their respective demands on the individual. The Mexican-American home expects that the children assume many responsibilities which was reflected by the high scores on the Vineland Social Maturity Scale. Following are some major examples: (1) the self-care of young children at an early age; dressing, personal hygiene, self-feeding, playing alone, going to the store, etc.; (2) the care of younger siblings; (3) the helping in home management by doing a significant share of the housework; (4) helping of the family by earning money for the general support of the home; (5) the assumption of adult roles in major decision-making processes in the home.

The middle-class culture, through schools and other socializing agencies such as police, church, radio, television, books, etc., makes its own demands. Some examples are: (1) the speaking of English; (2) doing school work; (3) continuing education beyond high school; (4) buying stylish chothes; (5) valuing nice homes and cars; and (6) having light skin.

A conflict can be expected to arise when the Mexican-American is forced to adjust to the demands of the two cultures. For example, young children are encouraged to get a good education in the Mexican-American home. This value appears to be in keeping with our schools. The same Mexican-American parents, however, who value school will keep the children home to baby sit or go on a trip to Tiajuana. When the child returns to school, he has done the correct thing according to his parents by helping with the baby sitting and the trip to Tiajuana. He has, however, failed the school by not showing up. If they stay home to help the family, they are good Mexican-Americans and bad students. On the other hand, if they are good students and demand to go to school, they are bad Mexican-American children. They lose either way. Situations of this nature permeate the bicultural life situation of the Mexican-American as he goes from home to school.*

There appears to be a lack of sensitivity to this marginal position of Mexican-American students by both the Mexican-American adults and the schools. The parents fail to realize the magnitude of the effort their children must go through to carry out the day-by-day demands forced upon them. There are no compliments for the nine-year-old girl who cares for two younger siblings all evening instead of playing as middle-class children. Unaware of school demands, the mother simply expects this as she will expect the same child as a teenager to give all her earnings to the family from field work without recognition. It is simply expected.

The school, on the other hand, counsels, teaches, encourages, and treats all individuals as if similar home demands were made of the Mexican-Americans as are made of the middle-class children. The result is that no one helps the Mexican-American students cope with guilt feelings resulting from the demands of two equally demanding cultures. The outcome of this

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* A note of caution in generalizing from this data: although there were some well assimilated Mexican-Americans in the population for whom the group generalization would not apply, the majority were rural, low-income Mexican-Americans, many of whom still work in the fields. Therefore, these generalizations are not to be used to stereotype all Mexican-Americans in all parts of California.

process is that many children make a choice and select one culture in which to succeed, thereby refusing to accept the other. Either way, the decision is unwise since they exist in both. The third alternative is to try to exist in both, but the demands are disproportionately large and almost guarantee some degree of failure in both. If a Mexican-American boy goes to college, he pleases society but abandons his parents. If he tries to help his parents, he has trouble succeeding at college and is likely to be labeled uninterested in school.

In the case of some other national, ethnic, or racial groups, the bicultural, marginal persons disappear on one or two generations. Historical, linguistic, agricultural, and simple geographical factors make the problem of the marginal Mexican-Americans an ongoing one. What then can be done to improve the self-concept of the Mexican-American students who already contribute much to their families and to society, and for which they can and should be proud?

Recommendations in the Social and Emotional Categories

What can the school do to overcome the low self-concept manifested by the Mexican-American students concerning both his relationship at home and at school?

Curriculum Recommendations

(1) The introduction into the basic school curriculum of specific curricular programs in the development of self-awareness and socialization skills is recommended starting at the pre-school level and continuing through the sixth grade. The concept of guidance should be removed from its present peripheral role and be given a special place in the daily school program, particularly in the early age levels. An example of a program that is particularly aimed at development of an adequate self-concept is one developed by Dr. Bessell, from San Diego, and the senior author of this report.

(2) The introduction into the regular school curriculum of materials designed to give the Mexican-American students an idea of who they are is essential. Not only the Spanish, but the Indian and Mexican background should be emphasized. The Mexican-Americans' contributions to the local community, state, and country should be introduced all along the school programs, the purpose of which is to help convince the Mexican-Americans of their historical and present contributions to life and culture. The new state readers and materials presently being developed in the State Department Mexican-American Project would be invaluable.

(3) The extension and liberal use of the Spanish language to perpetuate feelings of pride in the Mexican-American children is desirable. The purpose of this is not to detract from the learnings of English, but to make the Mexican-American students feel confident about their ability to communicate orally, thus facilitating their learning of English.

Educational Technique Recommendations

(1) Pre-service and in-service training of personnel is paramount to success in this area. The pre-service and in-service training should be for all school personnel, from superintendents to custodians. This training would focus on the emotional and social aspects of the Mexican-Americans and their backgrounds and language. The concepts of sensitivity training and other techniques designed to influence significantly the attitudes toward such minority groups would prove invaluable. Pre-service and in-service seminars, conferences, workshops, and courses should be used extensively to educate the people in the schools toward an understanding and appreciation of the background and social makeup of the Mexican-American population.

(2) An effort should be made to increase the guidance services at all levels, but particularly at the lower levels, pre-school through sixth. The guidance personnel should be hired particularly for their understanding of the emotional and social needs of these children. Their role should be interpreted in such a way that continual, day-by-day contact is established with the teacher, thus insuring the in-service growth of the classroom personnel.

(3) The use of the home-school coordinator, the adult education program, or any other means should be used to educate the parents to the type of encouragement and needs for positive reinforcement by these students.

(4) The provision should be made of an orientation program for all incoming students to inform and reassure them concerning their new situation.

(5) All school personnel and particularly secretaries should undergo training in the pronunciation of Spanish names. This is not to stereotype all Mexican-Americans by Spanish pronunciation of their names; rather, the purpose is to make it apparent to the children that district personnel feel they are important enough to have their names pronounced correctly. This is recommended to raise the level of self-esteem of the Mexican-American students.

Conclusions in the Academic-Intellectual Categories

I. Conclusions in the Academic Category

The academic achievement of the Mexican-American population in San Ysidro was characterized by a progressive drop in achievement throughout the grades. This progression began with approximately normal achievement at the first grade and took a significant drop at the second grade level. By the sixth grade, the population was approximately one year below grade level. Of particular import to these conclusions were the significant drops at the second and third grades.

Two significant principles in the education of children in California are concluded to be associated with the progressive retardation that seems to characterize the achievement of the Mexican-American population. The first is the de-emphasizing of individualized instruction at the second and third grades and the emphasizing of subject matter as it applies to groups of children. The second principle applies to the increasing demands of the ability to abstract on the students as they begin to deal with the demanding body of knowledge they are to learn.

In the beginning years (pre-school, kindergarten, and first grade), there is very much concern with the level at which a child functions. Tasks which are considered too difficult are not imposed on the children, and there is no hesitancy in first grade to start an immature individual at the most elementary levels. Time is made available for perceptual-motor activities critical to the learning of reading, and much is made of each individual's readiness level. As the children progress up to the second, third, and fourth grades, increasingly greater demands are made of the teacher to spend time on certain bodies of knowledge which are considered critical at each age level. As these demands increase, less time is given to the individualized needs of the children. What results is that children particularly linguistically and/or culturally handicapped who are having trouble for other reasons (the discussion of these other reasons is part of the second principle) are placed in group situations far beyond their capabilities, thus beginning the failure cycle.

A second principle in operation is that of the abstraction demands made on the children by the materials at the second and third grade level. Up until this approximate level, the Mexican-American learners had been learning fairly concrete concepts such as letters, words, numbers, colors, etc. The stories they were concerned with revolved around the learning of specific words. This, however, begins to change progressively beyond the second and third grades. At that time, the child is forced to begin to read and otherwise interact with content predicated on middle-class norms and home experiences.

The middle-class children themselves are made to start abstracting about homes they don't know, towns they have never seen, and animals they have never observed. Still, the vehicle for carrying the story is predicated on a middle-class environment with which they are surrounded. The man and his family take a trip in a nice car on nice streets with sidewalks; the mother has blue eyes and the father wears a tie. The story explains a breakfast of poached eggs, bacon, and cereal, and although the place they visit in the social science lesson is one the middle-class children have never seen, the basic vehicle of communication is the same.

The Mexican-American children, on the other hand, are forced not only to abstract to the lesson at hand, as the middle-class child, but also has to generalize to the basic middle-class vehicle of communication. The nice car looks nothing like theirs; where they drive, there may be no nice sidewalks; their mother has dark skin and brown eyes, and their daddy wears a tie only to important events. Thus, the Mexican-American children have to abstract first to the middle-class vehicle of communication and many times

never manage to get to the basic purpose of the lesson. Add to this the larger demands of homework without the help of a middle-class person and the magnitude of the problem increases.

Since this problem is a progressive one, the gap widens continually between the Mexican-Americans as a group and the normative population. Once the cycle of failure starts, it is difficult to alter because of the increasing number of things the teacher feels she or he has to teach. It should be understood that this principle applies throughout the entire school career of the students.

Some individuals may want to interject an argument at this point concerning the observation that perhaps the key factor at this transitional level lies in the lack of ability of these children in carrying through on their own. Some educators talk about the lack of ability these individuals exercise in not doing homework, etc. This argument is difficult to accept in view of their high ability to handle social responsibility.

II. Recommendations in the Academic Category

Curricular Recommendations

(1) The curriculum throughout all levels, but particularly at the elementary and intermediate grades, should be geared to the experiential base of the population. Of critical importance in this recommendation is the study of English as a second language. Again, the same recommendation made concerning the inclusion of materials related to Mexican-American culture, history, and tradition should be interjected into the curriculum. This is intended not only to make the children feel proud of who they are, but also to provide an experiential background to facilitate learning.

(2) Although not all subjects at the upper grades lend themselves to the interjection of Mexican-American tradition and culture, the majority of subjects can provide such an experiential baseline for learning. Literature, history, Spanish, and home economics classes can all provide a cultural bridge for learning without weakening the learning curriculum at the older age levels.

Educational Technique Recommendations

(1) In-service and pre-service training is suggested for certificated personnel in English as a second language and the cultural background and history of Mexican-Americans. Such training might include conferences, classes, and workshops to teach teachers how to carry out such curricular changes in the regular day schedules.

(2) The hiring of a specialist in English as a second language to serve as an in-service instructor and day-to-day consultant to the teachers would be helpful.

(3) The hiring of a specialist in the area of Mexican-American culture and history could facilitate understanding of the unique role of the Mexican-American in all aspects of social development, thus increasing teacher competence in this area.

(4) The emphasis on recruitment of teachers who are Mexican-American and/or speak Spanish is critical. Because of the need to hire many certificated and non-certificated personnel who have not had experience with Mexican-Americans, some systematic orientation should be set up to acquaint them with the needs of this group. A note of caution should be observed here: although Mexican-American individuals are valuable assets to the system, their being Mexican-American and speaking Spanish is no guarantee of their understanding or sensitivity to the Mexican-American population. . Orientation should be made available to <u>all</u> new people hired.

(5) Of particular emphasis in all aspects of the school program should be an evolving effort to place the focus of education on the child and his unique needs, as well as the subject matter. One need not be emphasized to the exclusion of the other.

I. Conclusions in the Intellectual Category

The much-quoted difference between the verbal and performance ability of Mexican-Americans in other studies materialized for this population. In spite of the cultural bias known to be inherent in the two tests used, the WISC and Harris-Goodenough, the traditional low I.Q. reported for this group (70 to 85 I.Q. range) was not apparent. The measures in both tests clustered instead within the low average range (89-98).

If the cultural bias known to exist in these tests is condidered, a basically normal intellectual ability may be strongly inferred. This assumption of normal intellectual ability for the population examined is considered, on the basis of these two tests, diagnostically irrelevant. The inclusion of the measured range is presented only as a rather unique characteristic of this particular rural Mexican population. It is difficult to arrive at any conclusions concerning the difference in intellectual range of the present population and other tested Mexican-American populations.

Whatever the reasons for this finding may be, it would appear reasonable to conclude that there are some factors occurring in the San Ysidro home and school environment which contribute more than other similar areas to the students' intellectual development. Since present data do not show the San Ysidro schools to have an exceptionally high dropout rate in comparison to similar border, rural areas, the complimentary nature of this finding to the school district is acknowledged. It would appear that the San Ysidro schools tend to have more intellectually capable students assessed according to two independent measures of intelligence than other similar areas.

The two main areas of deficiencies in this population were vocabulary and information, both largely dependent upon the experiential background of the individual. All other areas of intellectual ability tended to be within the normal limits.

II. Recommendations in the Intellectual Category

Curricular Recommendations

(1) All study trips taken by classes to enhance the experiential background of these children should be well-planned and followed through. The purpose of these study trips should be to expose the students to as many possible situations as are necessary to aid in their intellectual development.

(2) The use of expendable magazines like Life and Look to give the children broader information would be useful. This type of reading material should be given so it can become a natural part of these student's homes. In this way, the students can begin to broaden the information and vocabulary in topics other than those related to school.

Educational Technique Recommendations

These findings should be made available to certificated personnel and particularly to the psychometric and psychological personnel.

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